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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/032,883 | 10/29/2001 | Sebastien Bouat | B-4343 619198-0 | 8289 |

7590 01/07/2005

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

COURTENAY III, ST JOHN

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2126

DATE MAILED: 01/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

10/032,883

Applicant(s)

BOUAT ET AL.

Examiner

St. John Courtenay III

Art Unit

2126

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2001.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-20 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.


Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 29 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


ST. JOHN COURTENAY III
PRIMARY EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date April 8, 2002.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Detailed Action

Objection to the specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.

(b) CROSS-REFERENCE TO RELATED APPLICATIONS.

(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.

(d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC. (See 37 CFR 1.52(e)(5) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or

REFERENCE TO A "MICROFICHE APPENDIX". (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)

(e) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(f) BRIEF SUMMARY OF THE INVENTION.

(g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(h) DETAILED DESCRIPTION OF THE INVENTION.

(i) CLAIM OR CLAIMS (commencing on a separate sheet).

(j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 - 6, 9-15, 18, & 20 are rejected under 35 U.S.C. § 102(e) as being anticipated by **Chang et al.** (U.S. Patent 6,553,427).

As per independent claim 1:

Chang teaches a system including a software component comprising an input for receiving messages from other systems and an output for sending messages to a telecommunication service application [see "telecommunication service providers, such as service application programs" col. 3, lines 37-38; "service application" col. 21, line 38], wherein the output comprises a message-based set of libraries capable of transmitting messages to the application [see "software library routines" col. 3, lines 41-43; see also "the INAP interface is a set of library routines that are shared by both TCAP server processes and by instances of service applications programs" col. 6, lines 34-37], and further

wherein the software component includes a formatter unit for processing received messages prior to transmission to the application via the message-based set of libraries [see formatting or translation interface function of the INAP_Operation class disclosed col. 21, lines 41-61, i.e., "By using the INAP_Operation class, the service application program does not need to know about the data structure or field names of any INAP message type to retrieve or manipulate data fields in an INAP message].

As per independent claim 18:

This claim is rejected for the same reasons detailed above in the rejection of claim 1, and also for the following additional reasons:

Chang teaches a system including a software component comprising an input for receiving messages from other systems [e.g., see "TCAP server process", col. 6, line 40], and an output for sending messages to a plurality of telecommunication service applications, wherein the output comprises a message-based set of libraries capable of transmitting messages issued from the output means of the software component to the application [see "software library routines" col. 3, lines 41-43; see also "the INAP interface is a set of library routines that are shared by both TCAP server processes and by instances of service applications programs" col. 6, lines 34-37], and further wherein the software component includes a plurality of formatter units for processing the received messages, prior to transmission to the application via the message-based set of libraries, to provide processed messages to the application, the processed messages including only part of the data of the received message, and each formatter unit adapted to provide processed messages in respective

different formats [see formatting or translation interface function of the INAP_Operation class disclosed col. 21, lines 41-61, i.e., "By using the INAP_Operation class, the service application program does not need to know about the data structure or field names of any INAP message type to retrieve or manipulate data fields in an INAP message].

As per independent claim 20:

This claim is rejected for the same reasons detailed above in the rejection of the independent claims 1 and 18, and also for the following additional reasons:

Chang teaches a system including a software component comprising input means for receiving messages from other systems, and output means for sending messages to a series of telecommunication service applications, wherein the system further includes a message-based set of libraries [see "software library routines" col. 3, lines 41-43; see also "the INAP interface is a set of library routines that are shared by both TCAP server processes and by instances of service applications programs" col. 6, lines 34-37] capable of transmitting messages issued from the output means of the software component to the series of applications, the message-based set of libraries being activated by the software component, in that the software component includes at least two formatter units for formatting messages into at least two different respective message formats for transmission to the applications via the message-based set of libraries [see formatting or translation interface function of the INAP_Operation class disclosed col. 21, lines 41-61, i.e., "By using the INAP_Operation class, the service application program does not need to know about the data structure or field names of any INAP message type to retrieve or manipulate data fields in an INAP message].

As per dependent claim 2:

Chang teaches the formatter unit processes the received messages by filtering to thereby provide processed messages to the application in an appropriate format which includes only part of the data of the received message [see formatting or translation interface function of the INAP_Operation class disclosed col. 21, lines 41-61, i.e., "By using the INAP_Operation class, the service application program does not need to know about the data structure or field names of any INAP message type to retrieve or manipulate data fields in an INAP message].

As per dependent claim 3:

Chang teaches the formatter unit processes the received messages by converting the received messages to thereby provide processed messages to the application in an appropriate format [see formatting or translation interface function of the INAP_Operation class disclosed col. 21, lines 41-61, i.e., "By using the INAP_Operation class, the service application program does not need to know about the data structure or field names of any INAP message type to retrieve or manipulate data fields in an INAP message].

As per dependent claim 4:

Chang teaches a plurality of telecommunications service applications [see "telecommunication service providers, such as service application programs" col. 3, lines 37-38; "service application" col. 21, line 38] and a plurality of formatter units, each formatter unit being adapted to provide processed messages in respective different formats [see formatting or translation interface function of the INAP_Operation class disclosed col. 21, lines 41-61, i.e., "By using the INAP_Operation class, the service application program does not need to know about the data structure or field names of any INAP message type to retrieve or manipulate data fields in an INAP message].

As per dependent claim 5:

Chang inherently teaches the message-based set of libraries is a message-based Application Programming Interface [see "software library routines" col. 3, lines 41-43; see also "the INAP interface is a set of library routines that are shared by both TCAP server processes and by instances of service applications programs" col. 6, lines 34-37].

As per dependent claim 6:

Chang teaches the input is adapted for receiving messages from the Internet protocol network and wherein the system further comprises a second output for sending messages into such a network [see use of INAP protocol, and broad scope of disclosure e.g., "protocols other than INAP protocol may be abstracted, and underlying lower-level protocols might be employed to transfer data between originating switches and NIPS" col. 22, lines 38-45].

As per dependent claim 9:

Chang teaches the software component further includes means for dispatching messages onto the formatter units [see formatting or translation interface function of the INAP_Operation class disclosed col. 21, lines 41-61, i.e., "By using the INAP_Operation class, the service application program does not need to know about the data structure or field names of any INAP message type to retrieve or manipulate data fields in an INAP message].

As per dependent claim 10:

Chang teaches the dispatched messages are in the form of a series of fields and further wherein the formatter units include means to retrieve values of some fields of a dispatched message to produce a message including the retrieved values [see formatting or translation interface function of the INAP_Operation

class disclosed col. 21, lines 41-61, i.e., "By using the INAP_Operation class, the service application program does not need to know about the data structure or field names of any INAP message type to retrieve or manipulate data fields in an INAP message].

As per dependent claim 11:

Chang teaches the formatter units further include means for receiving messages in response to the sent formatted messages, and further wherein the software component includes means for handling messages which consist of a series of fields, and in that at least one of the formatter units includes means for setting a value of a field of a message handled by the software component in accordance with at least one parameter of a received response-message [see formatting or translation interface function of the INAP_Operation class disclosed col. 21, lines 41-61, i.e., "By using the INAP_Operation class, the service application program does not need to know about the data structure or field names of any INAP message type to retrieve or manipulate data fields in an INAP message].

As per dependent claim 12:

Chang teaches the formatter units convert dispatched messages into respective different languages [see formatting or translation interface function of the INAP_Operation class disclosed col. 21, lines 41-61, i.e., "By using the INAP_Operation class, the service application program does not need to know about the data structure or field names of any INAP message type to retrieve or manipulate data fields in an INAP message].

As per dependent claim 13:

Chang inherently teaches that the message-based set of libraries is an Application Programming Interface capable of transferring messages which are in different formats [see "software library routines" col. 3, lines 41-43; see also "the INAP interface is a set

of library routines that are shared by both TCAP server processes and by instances of service applications programs" col. 6, lines 34-37].

As per dependent claim 14:

Chang teaches the message-based set of libraries is adapted for transmitting differently formatted messages [see "software library routines" col. 3, lines 41-43; see also "the INAP interface is a set of library routines that are shared by both TCAP server processes and by instances of service applications programs" col. 6, lines 34-37].

As per dependent claim 15:

Chang teaches the software component, the telecommunications service application and the output are implemented on a tightly coupled stack running of the same hardware platform [Chang teaches the use of the well known SS7 protocol [see col. 22, line 41] and therefore inherently teaches the use of a protocol stack (i.e., "tightly coupled stack"). In the SS7 (i.e., "Signaling System Number 7") protocol stack the INAP layer is the top one with the TCAP layer (Transaction Capabilities Application Part), with the SCCP layer (Signaling Connection Control Point) and the MTP layer (Message Transfer Part) below it.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, 8, 16, 17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chang et al.** (U.S. Patent 6,553,427) in view of **Corneliussen et al.** (PCT WO 00/48368).

As per dependent claims 7 and 8:

Chang discloses the invention substantially as claimed, as discussed.

However, **Chang** does not *explicitly* teach the following additional limitations with respect to dependent claims 7 and 8:

Corneliussen teaches the use of a gatekeeper unit [e.g., see "lightweight gatekeeper communicating with real gatekeepers" and associated discussion page 5, beginning line 25] which has an input for receiving, from an internet protocol network [see use of Internet page 5, line 30], requests for establishment of communication links, and which the gatekeeper unit further has means for decoding messages incoming from the internet protocol network into a local representation of the gatekeeper component [e.g, see gatekeepers discussion beginning page 6, lines 6-26; see use of Java/RMI, CORBA, discussion page 9, line 26; see also methods of exchanging QoS info between gatekeepers, discussion page 7, see also discussion page 9, beginning line 5].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve upon the system taught by **Chang** by implementing the improvements detailed above because it would provide **Chang's** system with the enhanced capability of using gatekeepers to effect load balancing by using lightweight gatekeepers to distribute call traffic towards the least loaded gatekeeper [e.g., see page 6, lines 1-5, lines 24-26].

As per independent claims 16, 17, 19:

Chang discloses the invention substantially as claimed, as discussed above, and further detailed below for claims 16, 17, and 19, respectively.

[re: claim 16]:

Chang teaches a method for execution in a (server) [e.g., see "TCAP server process", col. 6, line 40] and telecommunication system which includes a server unit [e.g., see "TCAP server", col. 6, line 41], the method comprising: receiving messages from other systems [col. 18, lines 47-49, i.e., description of step 604]; sending received messages to a telecommunications service application [see "telecommunication service providers, such as service application programs" col. 3, lines 37-38; see also "service application" col. 21, line 38] via a message-based set of libraries [see "software library routines" col. 3, lines 41-43; see also "the INAP interface is a set of library routines that are shared by both TCAP server processes and by instances of service applications programs" col. 6, lines 34-37]; processing the received messages, prior to sending them, to ensure that sent messages are in an appropriate format for the telecommunications service application [see formatting or translation interface function of the INAP_Operation class disclosed col. 21, lines 41-61, i.e., "By using the INAP_Operation class, the service application program does not need to know about the data structure or field names of any INAP message type to retrieve or manipulate data fields in an INAP message].

[re: claim 17]:**Chang** teaches a method for execution in a (server) [e.g., see "TCAP server process", col. 6, line 40] and service telecommunication system including a server unit [e.g., see "TCAP server", col. 6, line 41] which has an input for receiving, from an internet protocol network [see use of INAP protocol, and broad scope of disclosure e.g., "protocols other than INAP protocol may be abstracted, and underlying lower-level protocols might be employed to transfer data between originating switches and NIPS" col. 22, lines 38-45], requests for establishment of communication links, and which the server unit further has means to send responses to such requests into such

a network the telecommunication system further including a service platform comprising at least two service units [see "telecommunication service providers, such as service application programs" col. 3, lines 37-38; see also "service application" col. 21, line 38], each capable of deriving, from a message received from the server unit, service information relating to a communication link to which the message is associated, the service units accepting messages in respective different message formats, and the system further including means for transferring messages from the server unit to the service platform and from the service platform to the server unit, wherein the method further comprises the step of formatting messages into the respective message formats of the at least two service units, this formatting step being carried out by at least two formatter units in the server unit [see formatting or translation interface function of the INAP_Operation class disclosed col. 21, lines 41-61, i.e., "By using the INAP_Operation class, the service application program does not need to know about the data structure or field names of any INAP message type to retrieve or manipulate data fields in an INAP message].

[re: claim 19]: **Chang** teaches a (server) and service telecommunication system including a software component [e.g., see "TCAP server process", col. 6, line 40] comprising an input for receiving messages from other systems, and an output for sending messages to a plurality of telecommunication service applications, wherein the output comprises a message-based set of libraries capable of transmitting messages issued from the output means of the software component to the application [see "software library routines" col. 3, lines 41-43; see also "the INAP interface is a set of library routines that are shared by both TCAP server processes and by instances of service applications programs" col. 6, lines 34-37], and further wherein the software component includes a plurality of formatter units for processing the received messages, prior to transmission to the application via the message-based set of libraries, to provide processed messages to the application, the processed messages including only part of the data of the received message, and each formatter unit adapted to provide processed messages in

respective different formats [see formatting or translation interface function of the INAP_Operation class disclosed col. 21, lines 41-61, i.e., "By using the INAP_Operation class, the service application program does not need to know about the data structure or field names of any INAP message type to retrieve or manipulate data fields in an INAP message].

However, **Chang** does not *explicitly* teach the following additional limitations with respect to independent claims 16, 17, & 19:

Corneliussen teaches the use of a gatekeeper unit [e.g., see "lightweight gatekeeper communicating with real gatekeepers" and associated discussion page 5, beginning line 25] which has an input for receiving, from an internet protocol network [see use of Internet page 5, line 30], requests for establishment of communication links, and which gatekeeper unit further has means to send responses to such requests into such a network the telecommunication system further including a service platform comprising at least two service units [e.g, see "gatekeepers" discussion beginning page 6, lines 6-26].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve upon the system taught by **Chang** by implementing the improvements detailed above because it would provide **Chang's** system with the enhanced capability of using gatekeepers to effect load balancing by using lightweight gatekeepers to distribute call traffic towards the least loaded gatekeeper [e.g., see page 6, lines 1-5, lines 24-26].

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Prior Art not relied upon:

Please refer to the references listed on the attached PTO-892
which are not relied upon in the claim rejections detailed above.

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How to Contact the Examiner:

Any inquiry concerning this communication or earlier communications from the examiner should be directed to St. John Courtenay III, whose telephone number is 571-272-3761. A voice mail service is also available at this number. The Examiner can normally be reached on Monday - Friday, 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, An Meng-AI who can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Alexandria, VA 22313-1450

Patent Customers advised to FAX communications to the USPTO

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NEW PTO CENTRAL FAX NUMBER:

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703-872-9306

- Any inquiry of a general nature or relating to the status of this application should be directed to the **TC 2100 Group receptionist: (703) 305-3900.**

Please direct inquiries regarding fees, paper matching, and other issues not involving the Examiner to:

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The Manual of Patent Examining Procedure (MPEP) is available online at: <http://www.uspto.gov/web/offices/pac/mpep/index.html>


ST. JOHN COURTENAY III
PRIMARY EXAMINER